



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,523	03/12/2004	John B. Truco	145921	8494

7590 03/29/2006

John S. Beulick  
Armstrong Teasdale LLP  
Suite 2600  
One Metropolitan Square  
St. Louis, MO 63102

EXAMINER

CASAREGOLA, LOUIS J

ART UNIT PAPER NUMBER

3746

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/799,523

Applicant(s)

TRUCO ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 1-13, 26, 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-19, 21-23, 25, 27-32, 34-35, 37-38 is/are rejected.
- 7) ☒ Claim(s) 20, 24, 33, 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/12/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Restriction Requirement***

Restriction to one of the following inventions is required under 35 USC 121:

- I. Claims 1-13 drawn to a method of assembling (operating) a gas turbine classified in Class 60, subclass 772, and
- II. Claims 14-39 drawn to a gas turbine classified in Class 60, subclass 39.15.

The inventions of Groups I and II above are distinct because the method of Group I could be practiced with apparatus materially different than that of Group II. The claimed apparatus, for example, requires that air from a propelling engine is supplied to an auxiliary engine inlet. The claimed method, on the other hand, merely specifies that the air from the propelling engine is channeled to the auxiliary engine, and this air could conceivably be conducted to a number of locations other than the engine inlet.

Because these inventions are distinct for the reasons given above and require separate classification and/or divergent fields of search, restriction for examination purposes as indicated is proper.

In addition to the above restriction between method and apparatus, further election of individual species is required.

### ***Species Election***

This application encompasses two different species of the inventive subject matter. These include a first species shown in the drawing figure in which a device (element 82) combines the exhaust streams from the propelling and auxiliary engines, and a second, unillustrated species in which the exhaust streams from the two engines are independent as described, for example, in claims 9, 26 and 39. Pursuant to 35 USC 121, applicants are required for a complete response to elect a single disclosed species.

On 3/23/06, applicants' attorney, Mr. Robert Reeser, made a telephone election, with traverse, of the invention of Group II along with the first species, i.e. the species shown in the drawing. The Group II claims readable on the elected species are claims 14-25 and 27-38. An action on the merits of these claims is presented below, and all remaining claims are withdrawn from further consideration.

### ***Objections To Drawing***

The drawing is objected to under 37 CFR § 1.84(a) for failing to show all claimed subject matter. As indicated above, the embodiment in which the main propulsion engine and auxiliary engine have independent exhausts as described in claims 9, 26

and 39 is different than the embodiment shown in the sole drawing figure. If applicants continue to retain the above cited claims, an additional drawing figure properly illustrating the missing material must be submitted in the response to this Office Action.

### ***Claim Rejections - 35 USC 112***

Claims 23, 25, 31 and 35 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 23 depends from itself and is consequently indefinite.

Dependent claims 25 and 31 describe the recited auxiliary and propelling engines as being operable independently. Corresponding parent claims 14 and 29, however, specifically require the engines to be coupled to provide air flow from the propelling engine to the auxiliary engine. In view of this requirement, the operation of the two engines cannot reasonably be construed as independent, and claims 25 and 31 are thus also rendered indefinite since they conflict with their parent claims.

In claim 35, reference to a "throttled valve" is ambiguous since the claim fails to specify what fluid flow is being throttled.

***Claim Rejections - 35 USC 102***

Claims 14-19, 27-30, 32, 37 and 38 are rejected under 35 102(b and/or e) as being anticipated by Denning et al (GB 2,074,654) or Albero et al.

The cited references each disclose an arrangement of multiple engines identical to that recited in the present claims. Attention is called to Denning's Figure 1; note propelling engine 1, core section 3, fan 4, and auxiliary engine 10, with the engines coupled such that air from the propelling engine's core section is conducted to the auxiliary engine's inlet as described on page 2, lines 8-12. Attention is additionally called to Albero's Figure 1 which shows a similar engine arrangement; note propelling engine 14, the fan (unnumbered) in cowl 12, core section elements 22, 23, etc, and auxiliary engine 30. The auxiliary engine may be coupled to receive air directly from the propelling engine core section through inlet 46 (Fig. 4) as described in column 3, lines 64-67.

With regard to claims 16-18 and 30, it is emphasized that air conducted to the auxiliary engine in either reference will exhibit increased pressure, temperature, and density relative to propelling engine inlet conditions because the air has passed through at least a portion of a compressor, which will necessarily raise its pressure, temperature and density.

With respect to claims 19, 27, 28, 32, 37 and 38, statements to the effect that the recited engine apparatus facilitates "generating increased shaft horsepower", "enhancing a surge margin", and/or "improving operating performance" merely describe desired

results. If the claimed apparatus is presumed capable of achieving such results, than the corresponding prior art apparatus can be presumed equally capable.

***Claim Rejections - 35 USC 103***

Claims 21-23, 34 and 35 are rejected under 35 USC 103(a) as being unpatentable over Denning et al (GB 2,074,654) or Alberio et al as discussed above and in view of Schwent.

The nominal addition of speed and/or surge controls to a gas turbine is a conventional expedient as shown, for example, by Schwent; see Figure 2 and note the speed control system comprising elements 104, 106, etc., and the surge control system comprising 116, 126, etc. It would have been obvious to add such control systems to the propulsion and/or auxiliary engine in either of the primary references to perform these systems' normal functions of adjusting engine output and maintaining safe operating limits. With regard to claims 23 and 35, note also that the "surge valve" referred to in Schwent's function box 126 reads on the valve broadly described in either of the claims.

***Allowable Subject Matter***

Claims 20, 24, 33 and 36 contain allowable subject matter but are objected to as depending from rejected parent claims. If rewritten in independent form, these claims will be allowed.

Applicants are further advised that if claims 23 and 35 are amended to specify that the claimed valve is in the airflow conducted from the propelling engine to the auxiliary engine, these claims will also be allowed. (Allowance of claim 23 is further contingent upon correcting its dependence to overcome the above § 112 rejection.)



L. J. Casaregola  
571-272-4826 (M-F; 7:30-4:00)  
571-273-8300 FAX  
March 27, 2006

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).